

1 BEFORE THE STATE OF WASHINGTON
2 ENERGY FACILITY SITE EVALUATION COUNCIL
3

4 In the Matter of Application No. 2003-01:
5 SAGEBRUSH POWER PARTNERS, LLC;
6 KITTITAS VALLEY WIND POWER PROJECT
7
8

EXHIBIT 40 SUP (AN-T SUP)

9
10 **APPLICANT'S PREFILED SUPPLEMENTAL DIRECT TESTIMONY**
11 **WITNESS # 21: ARNE NIELSEN**
12
13

14 Q Please state your name and business address.
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16 A My name is Arne Nielsen and my business address is 7660 Whitegate Avenue, Riverside CA
17 92506.
18

19 Q Have you previously filed prepared testimony in this matter?
20

21 A Yes.
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23 Q Is this testimony given to supplement your prior testimony?
24

25 EXHIBIT 40 SUP (AN-T SUP) - 1
ARNE NIELSEN
PREFILED SUPPLEMENTAL
TESTIMONY

DARREL L. PEEPLES, ATTORNEY AT LAW
325 WASHINGTON ST. NE #440
OLYMPIA, WA 98506
TEL. (360) 943-9528 FAX (360) 943-1611
dpeeples@ix.netcom.com

1 A Yes.

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3 Q. What is the specific purpose of this supplement to your prior testimony?
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5 A My previous testimony provided a shadow-flicker analysis for the Kittitas Valley Wind
6 Power project for a layout which was revised in late 2005. The project was downsized in
7 2005 and I provided a new shadow-flicker analysis report regarding the revised layout.
8 This report was provided to Kittitas County in late 2005 as a part of a new land use
9 application submitted by Sagebrush Power Partners LLC.
10

11 Q Would you please identify what has been marked for identification as Exhibit 40-2 (AN- 2)?
12

13 A Exhibit 40-2 (AN-2) is the shadow-flicker analysis that I conducted for the present Kittitas
14 Valley Wind Power Project referenced above.
15

16 Q Is the information in this exhibit within your area of authority and /or expertise?
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18 A Yes.
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20 Q Is the content of this exhibit based upon your own knowledge, or upon evidence, such as
21 studies and reports as reasonably prudent persons in your field and expertise are
22 accustomed to rely in the conduct of their affairs?
23

24 A Yes.
25

1 Q Is the content of this exhibit accurate?

2
3 A Yes.

4
5 Q Do you incorporate the facts and content of this exhibit as part of your testimony?

6
7 A Yes.

8
9 Q Do you sponsor the admission of this exhibit into evidence?

10
11 A Yes.

12
13 Q Please summarize the conclusions of your shadow flicker analysis regarding the new layout.

14
15 A The locations used by the analysis are approximate. The analysis assumed certain locations
16 designated on the turbine layout provided me by the Applicant. The final locations of the
17 turbines are assumed to not vary significantly, but will be subject to the micro-siting criteria set
18 out in the testimony of Andrew Young and Chris Taylor. In any event the turbines will never be
19 placed closer than ¼ mile from existing residences.

20
21 The shadow flicker model assumptions applied to this project are very conservative and as such,
22 the analysis is expected to over-predict the impacts. For example, the model does not take into
23 consideration details of the orientation of structures at the given locations or of the specific
24 placement of windows in those structures. Further, many of the modeled shadow flicker levels
25 that would be experienced at houses identified are expected to be of low density. The number

1 of shadow flicker hours calculated at the identified houses is common and comparable to other
2 wind power projects. Shadow flicker only occurs at dawn and dusk. All identified houses are
3 set back in excess of the industry standard setback of 1,000 feet. The setback from existing
4 residences will be a minimum of 1,320 feet.
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